What Really Works: A Review of Student Success Initiatives

CIVITAS LEARNING

University of South Florida's first-year retention rate now stands at 91 percent.

Its six-year graduation rate recently reached 73 percent, an increase of 22 percentage points since 2009. In 2018, USF was designated as a Preeminent State Research University by the Florida Board of Governors, unlocking new state funding designated for the most high-performing state universities.

Even more impressive than its record-high first-year retention rate, USF has eliminated achievement gaps by race and ethnicity, as well as income. African-American and Hispanic students now graduate at six-year rates that are actually higher than White students. Likewise, Pell-eligible students perform on par with higher-income students with only a percentage-point difference. These achievements have earned USF recognition by The Education Trust as the number one university in Florida for Black, Latino and Pell recipient student success and for ranking sixth, fourth and ninth respectively nationally as USF closed the achievement gap.

University of South Florida is a pioneer in the movement toward using data-informed, iterative improvements to support the diverse student population they have enrolled today. But this journey and their progress did not come without dedication, hard work, and the willingness to push against convention to achieve what they knew was possible.

Such is not always the case, sometimes for very good reasons. But as Civitas Learning findings continue to demonstrate the work left to be done in student services, it is essential to break down the current state of student success, the profile of today's student, the outcomes those students have seen recently, and the challenges higher education faces in order to break through to the kind of result University of South Florida has shown possible.

In this paper, we intend to do just that.

WHEN OVER **1,000 INITIATIVES** WERE ANALYZED FROM ACROSS **55 UNIQUE INSTITUTIONS,** CIVITAS LEARNING FOUND THAT:

60%
of student services had a positive impact on student persistence

40%
of student services demonstrated no impact on student persistence

The State of Student Success

Many dollars each year are put toward a variety of services intended to improve student outcomes, including tutoring centers, supplemental instruction courses, advising services, and more. At the same time, overall student graduation rates have remained stagnant for many years, with only a minor uptick in the most recent starting cohort of 2011.

Student graduation rates at 2 and 4-year institutions.

| 2010 GRAD RATES	54.8%
2011 GRAD RATES	56.9%

For the Fall 2011 starting cohort for both 2-year and 4-year institutions, student graduation rates were 56.9 percent, up from 54.8 percent in 2010.

– Source: National Student Clearinghouse

This incline from 54.8 percent for the 2010 starting cohort to 56.9 percent for the 2011 starting cohort is taken across 2-year and 4-year sectors, and marks the first overall completion rate increase since the Great Recession of 2007. Still, the rate is more than one percentage point lower than the year prior to the Recession. If you consider only 6-year graduation rates for students who began at a 4-year institution, the rate is a bit higher, though slightly more stalled, hovering at 59 percent for the past several years.

This stagnation of completion outcomes is widely known and often a focal point of institutional decision making. Unfortunately, these same institutions rarely have rigorous measurements of what is actually improving outcomes at their institution versus what has simply been a staple student service in the past, making it extremely challenging to inform institutional decisions with data. Even when rigor has historically been applied in measurement, rarely are the analyses timely or specific enough to inform action. Indeed, Civitas Learning has found that in the analysis of the roughly 1,000 initiatives assessed by more than 55 unique institutions, 40 percent of the services provided have no overall positive impact on persistence. That said, of those 40 percent of services with neutral impact overall, roughly 15 percent of analyzed student segments did experience an uplift in their likelihood to return.

40%
overall neutral;

15%
of these students in neutral saw impact

– Source:
Civitas Learning
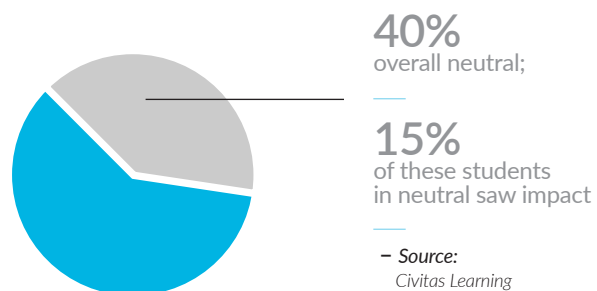
The fact that many services that were not impactful for the student body at large but were effective for a small subset of students is not surprising, especially considering today's educational environment, where roughly 75 percent of students fit into one or more "non-traditional" category. Services that were designed for the student body of the past may not have the same impact on the students of today.

75%
of students are non-traditional

– Source:
US Department of Education
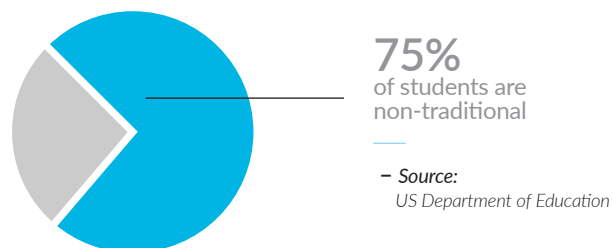
When it comes to supporting a highly diverse student body in a personalized and effective way, college and university leaders without clarity around what student services work most effectively for specific student groups at their institution will likely struggle to make sound, confident decisions. When underwhelming or stagnant persistence, retention, and completion rates are reviewed with this lack of data insight in mind, it becomes clear that the dollars invested in student services today are not realizing their full potential. A direct consequence of this lack of insight is that student success initiatives are not only not producing the desired overall retention and completion outcomes, but that there are marked disparities between outcomes for different student subpopulations as well. We will discuss this idea further in the "Outcomes" section of this paper.

Could it be that well-intended best practices originally designed to serve the student body of the past are a strong contributor to the stagnation in graduation rates and the achievement gap of today?

Today's Student

Roughly 75 percent of students today are considered non-traditional. The way this shows up may vary from institution to institution; however, in general, the "new" student body is different from traditional students of the past in two primary ways: *personal or life circumstances*, and *racial/ethnic background*.

SHIFTING PERSONAL CIRCUMSTANCES:

33% – 52%
are the first in their family to attend college

51%
come from low to moderate income households

30%
are part time students

28%
are working parents

– Source: National Student Clearinghouse, Fall 2011 Starting cohort

Whereas the majority of students in years past attended full time and lived on campus, the students of today come from a variety of living situations and begin their academic careers for different reasons. Their relationship with their institution is changing; even the modality through which students access an institution's resources has changed. Today, half of enrolled students take course work both on-premise and online.

The second notable trend in today's student body? *Demographic.*

THE RACE & ETHNICITY OF TODAY'S STUDENT BODY:

47.2% White

10.2% Black

10.1% Hispanic

3.6%   Asian

– Source: National Student Clearinghouse, Fall 2011 Starting cohort

The growth of certain racial and ethnic groups participating in higher education has been significant in recent decades. According to the Institution of Education Sciences, the largest increases in undergraduate enrollment between the years of 1990 and 2013 were observed for Hispanic and Black students. Specifically, Hispanic student enrollment as a percentage of total enrollment increased 11 percentage points (from 6 to 17 percent) and Black student enrollment as a percentage of total enrollment increased 5 percentage points (from 10 to 15 percentage points). This continued evolution in student demographics suggests that it is more important than ever to have systems in place that ensure institutions know what services work for what students and can optimize iteratively.
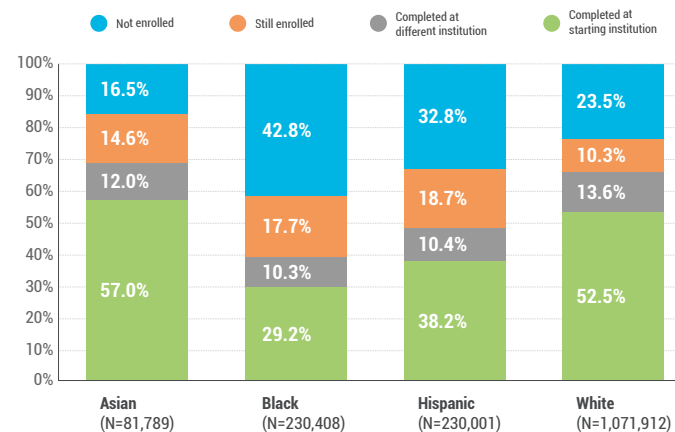
Today's students vary greatly, not only from the past, but from institution to institution. Understanding an institution's own highly variable and distinct student population is key to providing personalized support services. Perhaps even more essential is building internal capacity to regularly review what comprises your student population, and continuously and iteratively improving the services impacting their outcomes.

Outcomes

While graduation rates have generally remained consistent over the past decade, outcomes have varied greatly by student group. When six-year outcomes are broken down by race and ethnicity, the achievement gap between certain demographics is very apparent.

Student graduation rates at 2 and 4-year institutions. by race and ethnicity.
(N=1,614,110 students)*

Legend: ● Not enrolled ● Still enrolled ● Completed at different institution ● Completed at starting institution

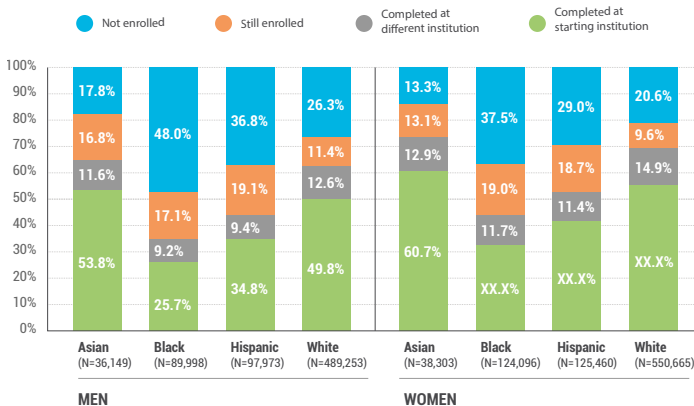|	Asian (N=81,789)	Black (N=230,408)	Hispanic (N=230,001)	White (N=1,071,912)
Not enrolled	16.5%	42.8%	32.8%	23.5%
Still enrolled	14.6%	17.7%	18.7%	10.3%
Completed at different institution	12.0%	10.3%	10.4%	13.6%
Completed at starting institution	57.0%	29.2%	38.2%	52.5%

– Source: National Student Clearinghouse

When broken down by race and ethnicity and gender, completion outcomes are particularly low for Black men, and particularly high for Asian women, with Black men graduating within 6 years at either their starting institution or another institution only 34.9 percent of the time and Asian women 73.6 percent of the time.
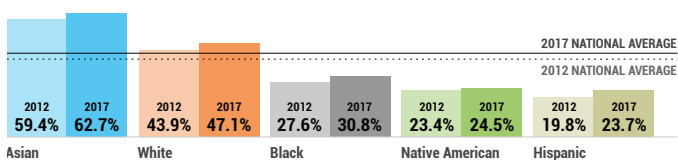
Six-year outcomes by race, ethnicity and gender.
(N=1,551,897 students)*

Legend: ● Not enrolled ● Still enrolled ● Completed at different institution ● Completed at starting institution

	Asian (N=36,149)	Black (N=89,998)	Hispanic (N=97,973)	White (N=489,253)	Asian (N=38,303)	Black (N=124,096)	Hispanic (N=125,460)	White (N=550,665)
Not enrolled	17.8%	48.0%	36.8%	26.3%	13.3%	37.5%	29.0%	20.6%
Still enrolled	16.8%	17.1%	19.1%	11.4%	13.1%	19.0%	18.7%	9.6%
Completed at different institution	11.6%	9.2%	9.4%	12.6%	12.9%	11.7%	11.4%	14.9%
Completed at starting institution	53.8%	25.7%	34.8%	49.8%	60.7%	XX.X%	XX.X%	XX.X%

MEN / WOMEN

– Source: National Student Clearing House

Another lens through which to view degree outcomes is by taking a closer look at students who are the first in their family to attend college. According to NASPA, only 27 percent of these "first in family" students will attain a degree within four years. At the same time, educational attainment is on the rise, for some populations more than others.

	Asian 2012	Asian 2017	White 2012	White 2017	Black 2012	Black 2017	Native American 2012	Native American 2017	Hispanic 2012	Hispanic 2017
	59.4%	62.7%	43.9%	47.1%	27.6%	30.8%	23.4%	24.5%	19.8%	23.7%

2017 NATIONAL AVERAGE
2012 NATIONAL AVERAGE

– Source: Lumina Foundation

This stark difference in educational attainment across race and ethnicity suggests that a disproportionate number of "first in family" students will continue to come from Black and Hispanic populations. Interestingly, these are the same populations projected to increase in enrollment numbers over the next decade.

This means that the same students who have already been historically underrepresented in higher education, are both more likely to be "first in family" and are projected to increase in enrollment (while more "traditional" students are expected to decrease in number).

In acknowledging the continued evolution of the typical student body as well as the potentially specific overlaps in ways students may need support, it becomes clear that institutions must adopt sophisticated personalization of student messaging, student support services, and academic programming.

Today, however, many student services are based on confidence in an existing program or the implementation of a standard best practice, rather than the data-informed personalization of student experience. Not surprisingly, this results in only 60 percent of student interventions demonstrating a measurable positive impact on student success overall. But, with additional refinement of student success strategies, grounded in an understanding of the student population, all is not lost. Of the 40 percent of services that have no impact on student retention, 15 percent of students *did* see an effect. Institutions may be more likely to close the achievement gap and break through completion plateaus if services could more systematically evolve in ways to support the students that stand to gain the most.

60%
OF ANALYZED INITIATIVES HAVE A STATISTICALLY SIGNIFICANT POSITIVE IMPACT

– BUT –

20%
ACTUALLY DID NOT WORK FOR CERTAIN STUDENT GROUPS

40%
OF ANALYZED INITIATIVES SHOW LITTLE TO NO MEASURABLE IMPACT

– BUT –

15%
ACTUALLY DID WORK FOR CERTAIN STUDENT GROUPS

It is essential for every institution to better understand their distinct services and unique student population in order to understand and iteratively refine their own work. But Civitas Learning has mined through more than 1,000 initiatives run by dozens of higher education institutions and found a few key trends between student subpopulations. Notably, data suggests that distinct variables in certain subpopulations are more "elastic" (possible to influence). **Listed below are trends as they relate to a handful of the populations previously discussed:**

MOST EFFECTIVE SERVICES (BY PERSISTENCE LIFT):
* PP=PERCENTAGE POINT

THE TOP 5 OVERALL INITIATIVES

1. **5.80pp lift...** *Advisor meeting*
2. **3.79pp lift...** *Greek life*
3. **3.43pp lift...** *Supplemental Instruction*
4. **3.24pp lift...** *Scholarship*
5. **3.02pp lift...** *Tutoring*

BLACK

- **4.94pp lift...** *Advisor meeting*
- **3.97pp lift...** *Tutoring*
- **3.79pp lift...** *Supplemental Instruction*
- **3.64pp lift...** *First-year seminar*
- **1.79pp lift...** *Career planning*

WHITE

- **5.75pp lift...** *Advisor meeting*
- **4.09pp lift...** *Greek life*
- **3.80pp lift...** *Supplemental Instruction*
- **3.45pp lift...** *Scholarship*
- **3.13pp lift...** *Tutoring*

HISPANIC

- **6.96pp lift...** *Advisor meeting*
- **4.50pp lift...** *Tutoring*
- **2.89pp lift...** *First-year seminar*
- **2.18pp lift...** *Supplemental Instruction*

Challenges

The challenge in providing highly effective student services designed both to continuously improve and to reach a highly diverse student population goes well beyond the acknowledgement of necessity.

Institutions certainly face a number of other constraints, including finite budgets, internal pressure to avoid change and potential risk, as well as analytical limitations.

Finite Budgets

When discussing the investment made on behalf of students and resulting outcomes, it is a disservice to student success leaders not to mention budget limitations that sometimes stand in the way of meaningful change.

It's true that the fifty states appropriated $91.5 billion dollars toward public universities and financial aid programs in FY 2018-2019. This is a modest (3.7 percent) increase over the previous year, and an 18.2 percent increase over FY 2013-2014. This marks a five-year trend of annual increases.

That said, of 49 states analyzed between 2008 and 2017, 44 report spending less per student than they did at the onset of the Great Recession. This is in large part due to the fact that as enrollment numbers have, at times, increased exponentially, funding dollars have not kept pace.

Average state and local funding for higher education.
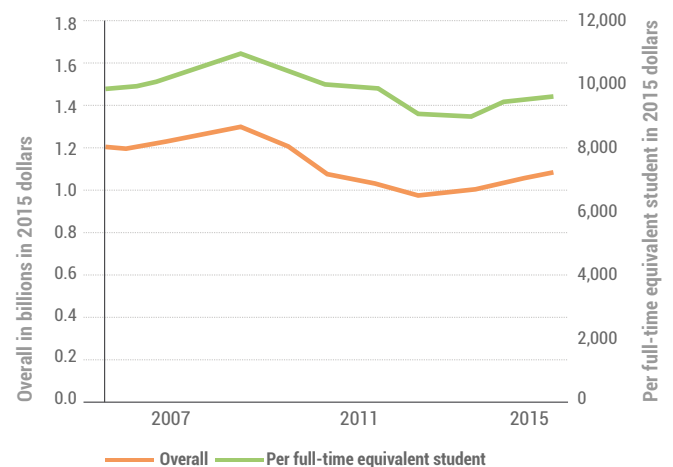
As state funding remains flat or changes nominally, many institutions have responded with tuition increases to compensate for the lack of cash flow. Since tuition fees began to plateau in 2012, this alternate avenue for funding can no longer make up for the overall decline in purchasing power of the higher education budget. Institutions are having to learn to do more with less, and these funding challenges also encourage institutions to focus existing funding on retaining current students rather than simply enrolling more.

Monroe Community College serves as a clear example of how, with the use of data, funding can be targeted to maximize the impact of student services and deliver substantial return. Their Center for Academic Reading (CAR) program, originally developed as a pilot under a Title III grant, served 1,856 students between Fall 2013 and Spring 2017, helping them with reading and critical thinking skills. As a pilot, the CAR cost the institution $138,000 each year including equipment, tutors and coaches to staff the center.

Monroe Community College used sophisticated analysis of more than 2,500 student pairs (online versus on-ground) — half of whom visited the CAR at least 10 times over the course of four years, and half of whom did not. They found that CAR demonstrated a 5.9 percentage point overall lift in persistence, which translated into a 3.4 percent return on investment for the college. This was the highest lift in persistence of all initiatives run through Impact at Monroe in the first-year. Impact also revealed that the CAR was most effective for new students, readmitted undergraduate students, full-time students, and students with the lowest probability to persist.

Armed with this knowledge, Monroe Community College was able to not only maintain, but expand this impactful program, confident that it would more than pay for itself in the long run.

This kind of thoughtful analysis and budget allocation can be challenging, but is increasingly necessary given the current state of funding. Encouraging this degree of rigorous measurement, though, may in itself feel risky.

Pressure to Avoid Risk

Higher education has historically been a pillar of stability in our society. Several thoughtful layers of approval and committee-based decision-making have ensured that the institution does not fall prey to fads nor last minute freneticism.

This same strength has also potentially had a hand in maintaining some outdated ideas, processes, structures, and services. In order to avoid risk, some institutions have held to the fallacy that change is inherently risky.

To explore this in greater depth, we'll dive specifically into the support of first-year students, a topic of great interest to most institutions, which is made clear by the fact that 82 percent of "student success studies" are focused on first-year students (Educause). With this significant a focus, it's no surprise that many institutions believe their programming for first-year students is effective. A 2017 survey run by Civitas Learning's partner, Ruffalo Noel Levitz, demonstrates the extent of this belief.

CONFIDENCE IN FIRST-YEAR PROGRAMMING:

93% of private institutions
believe that their first-year programming is either *somewhat* or *very* effective;

45% *say it's very effective.*

95.7% of 4 year public institutions
believe that their first-year programming is either *somewhat* or *very* effective;

26% *say it's very effective.*

75.8% of 2 year public institutions
believe that their first-year programming is either *somewhat* or *very* effective;

24.2% *say it's very effective.*

– *Source:* Ruffalo Noel Levitz

Yet, first-year retention is 61.1 percent, with persistence hovering at 73.4 percent (National Student Clearinghouse). With a focus on the experience of first-year students, such confidence in first-year programming, and a majority of institutions reporting studies on their first-year population, how is it that the retention rate for first-year students is only 61 percent?

This is even more concerning when persistence and retention of first-year students is broken down by race and ethnicity, wherein Black students are only retained 54.5 percent of the time, and persist at a rate of only 66.9 percent.

"One of the hardest things institutions try to do is to stop engaging in some of the practices that have long been part of our culture and our history — but if we are going to better serve each of our students and change their outcomes, this is what we need to do."

Barbara Bichelmeyer
Provost and Executive Vice Chancellor of UMKC

To begin truly improving outcomes, institutions like University of Missouri-Kansas City (UMKC) have begun taking a much more critical look at what's really moving the needle, and what has stuck around merely because it's always been that way.

Is it the belief that their first-year programming is effective that is in some way preventing institutions from transitioning to a data-informed system of continuous improvement of their student services? Is it the fear of risk? Change?

While this is possible, it's certainly not the only factor that may stand in the way. Even if a transition to iterative, targeted improvement of student services was fully supported both financially and culturally, sometimes the limitation of data itself can stand in the way.

Civitas Learning was able to review the impact of thousands of initiatives from several dozen higher education institutions.

In the case of first-year students, institutions see varying degrees of success with different initiatives. This is relative to the way they're deployed, the way they're managed, the students they supported, and more. First-year student persistence benefitted the most from these five student services:

1. **7.07** percentage point lift in persistence… **Advisor Meetings**

2. **6.06** percentage point lift in persistence… **Supplemental Instruction**

3. **5.20** percentage point lift in persistence… **Tutoring**

4. **5.03** percentage point lift in persistence… **Scholarships**

5. **3.08** percentage point lift in persistence… **Dev Ed Programs**

Compare this to **students who have completed four or more terms** and the importance of targeted, informed student support structures is apparent:

1. **3.42** percentage point lift in persistence… **Scholarships**

2. **3.37** percentage point lift in persistence… **Advisor Meetings**

3. **2.63** percentage point lift in persistence… **Career Planning**

4. **1.98** percentage point lift in persistence… **Tutoring**

5. **1.49** percentage point lift in persistence… **Supplemental Instruction**

Analytical Limitations

The good news is 95 percent of institutions say they conduct student success studies. The challenge is having confidence in the analysis and implementation of the study's results. In a survey conducted by Educause, 46 percent of respondents believed the conclusions drawn from data are not accurate.

THE NEED FOR STUDENT SUCCESS STUDIES:

88%
believe student success studies are needed

79%
believe the data used in these studies are accurate

54%
believe the conclusions drawn from the data are accurate

40%
believe that implementation of these conclusions is managed correctly

– Source: Educause

This suggests that there is an inherent limitation in using data to inform improvement in student services: the concern that it won't be used properly.

Additionally, it's possible that data is not finding its way to the individuals most likely to enact student-facing change in the first place. In fact, only 63 percent of institutions say that data is used by the front lines, whereas 86 percent of institutions report that senior leaders do use data to make decisions.

Not only is there a limit to the analytical prowess of some, but the democratization of data (and consequently, front-line access to the data they need to inform pinpointed, student facing change) is a challenging task for any institution to tackle. Without the ability to understand what could be complex analyses, some data could be used in inaccurate or even harmful ways.

In some cases, when traditional pre-post analysis is conducted (comparing this year's student body to last year's in order to isolate variables in a student's experience), conclusions can often be inaccurate, sometimes at the expense of the students themselves.

So it appears that two things are essential:

1. Both senior leaders and student-facing employees need to have access to data that serves their specific needs

2. Data and conclusions drawn from data need to be accurate and actionable in a meaningful, concise, and obvious way

The Limitation of Pre-post Analysis

Pre-post comparisons are widespread, in part because they are reasonably easy to do compared to the more rigorous, more expensive, and less feasible alternative (randomized control trials). Pre-post comparisons should be treated with a healthy dose of skepticism.

One common problem with pre-post comparisons is a failure to take into account prior student success trends before the program or initiative was implemented.

> *Example: An institution's persistence trend went from 70 percent to 75 percent in 5 years. At the end of year 5, the institution implements a new student success program and sees persistence move up to 76.3 percent in one year. What of the observed lift is because of the new program? It's impossible to say with confidence.*

Another common problem is that pre-post comparisons suffer from outside factors influencing student outcomes.

> *Example: The unemployment rate. When unemployment is high, people often look to going back to school and are more likely to stay enrolled, whereas when unemployment is low the trends reverse. This can impact results and make it impossible to differentiate what factors are truly influencing student outcomes.*

Finally, pre-post pilots can sometimes suffer from regression to the mean. In causal impact analysis, if pilot inclusion criteria encompass significant recent events or triggers associated with natural change in pre-post impact metrics, such a change can be mistaken for impact results.

Example: A program director conducting an intervention program focusing on students with a sudden large drop in credit hours attempted must be careful in reporting pre-post impact numbers since there may be an accompanying event, such as family loss of income, satisfactory academic progress (SAP) flag or mental health issues, that precedes the drop in credit hours or midterm grades.

What's Next

The abundance of intelligence theoretically available to every level of an institution should suggest more meaningful improvements in the persistence, retention, and graduation rates of all student groups. Because of budget challenges, a pressure to avoid risk, and some analytical limitations, this work will not happen overnight.

Nonetheless, closing the achievement gap and moving beyond the 59 percent graduation mark will require we address constraints head on.

We need to:

- *Allocate funding we do have with pinpoint precision*

- *Conduct an honest and objective self-reflection of who comprises the student body, what services they are provided, and what they need*

- *Address analytical limitations with improved mechanisms for analysis and guided interpretation and implementation of results*

It's important to start where you are. Recalling that only your institutional data can provide a realistic view of what's working, it may be helpful to glean insights from reports like this one. What programs are most effective for different kinds of institutions? Different kinds of students? And how can I use that information to better understand my own distinct population and services?

All told, perhaps it's time to step back from best practice and reimagine what a truly data-informed, personalized student experience could and should look like. If the 40 percent of student services that demonstrate no effect today could evolve to better serve the 15 percent of students they do impact positively, the picture would look quite different.

Paul Dosal, Vice President for Student Affairs and Student Success at the University of South Florida posits:
An institution can transform when a "network of care providers who fundamentally believe that every student admitted will succeed," is activated. And when those care providers have the data and tools they need to do their jobs well, "the impact is palpable."

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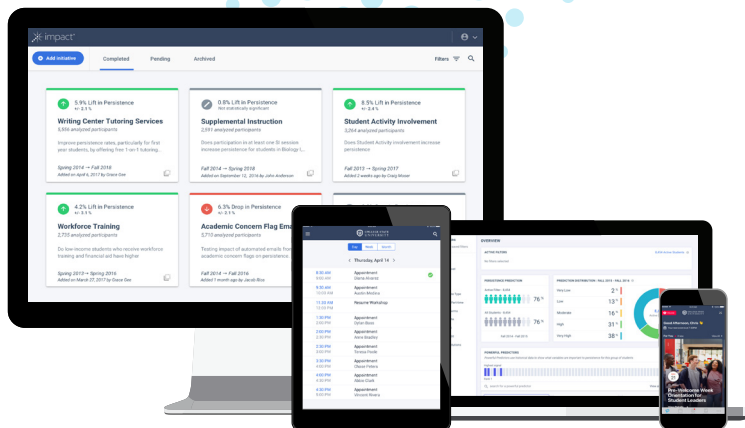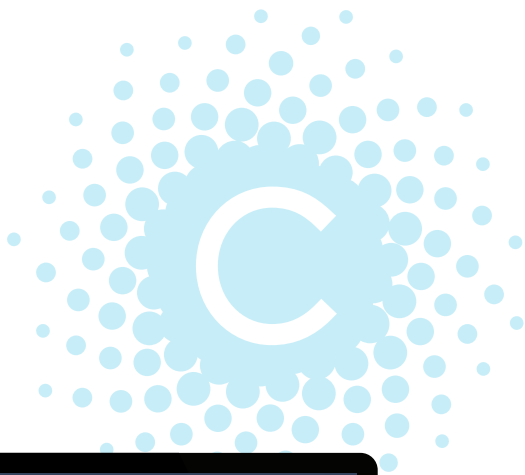
About Civitas Learning:

Civitas Learning helps colleges and universities harness the power of their student data to improve student success outcomes. We embed actionable intelligence in workflow tools so higher education can focus their student success strategies, deliver proactive care, inspire holistic advising, and quickly measure what's working for whom. With our platform, software and services, our customers empower leaders, advisors, faculty, and students to measurably improve enrollment, persistence, and graduation outcomes.

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